

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for treating a subject suffering from cancer, said method comprising the step of: administering to a subject a therapeutically effective amount of a replication competent aneurovirulent herpes simplex virus (HSV) comprising a nucleic acid sequence encoding for an agent selected from the group consisting of interleukin-12, granulocyte macrophage colony stimulating factor, and cytosine deaminase such that an anti-cancer response is induced in the subject.

2. (Original) A method according to claim 1, wherein said administering step comprises intratumorally disposing the HSV into the subject.

3. (Canceled)

4. (Canceled)

5. (Original) A method according to claim 3, wherein the HSV vector comprises a deletion of the $\gamma_134.5$ gene.

6. (Original) A method according to claim 5, wherein IL-12 genes are inserted within the $\gamma_134.5$ gene deletion.

7. (Original) A method according to claim 6, wherein the IL-12 genes comprise subunits p35 and p40 separated by an IRES sequence.

8. (Original) A method according to claim 7, wherein said IL-12 encoding nucleic acid sequence bicistronically expresses the p35 and p40 subunits to produce self-assembling, heterodimeric IL-12 in the HSV vector.

9. (Currently Amended) An anti-tumor pharmaceutical composition comprising a replication competent aneurovirulent herpes simplex virus (HSV) vector comprising a nucleic acid sequence encoding for a compound selected from the group consisting of IL-12, GM-CSF, and CD operatively linked to a promoter, and a pharmaceutically acceptable carrier.

10. (Canceled)

11. (Canceled)

12. (Previously Presented) A pharmaceutical composition according to claim 9, wherein said HSV vector has been transformed with an expression cassette comprising nucleic acid sequences encoding for the p40 and p35 subunits of IL-12, said subunits being separated from each other by an IRES encoding sequence.

13. (Original) A pharmaceutical composition according to claim 12, wherein said HSV vector includes a deletion of the $\gamma_134.5$ gene.

14. (Original) A pharmaceutical composition according to claim 9, wherein the expression of the nucleic acid sequence encoding for IL-12 results in constitutive production of IL-12 in vivo.

15. (Original) A pharmaceutical composition according to claim 9 which has been formulated for injection.

16. (Previously Presented) A pharmaceutical composition according to claim 9, wherein the promoter is a mammalian promoter.

17. (Currently Amended) An anti-tumor pharmaceutical composition comprising a replication competent herpes simplex virus vector comprising a nucleic acid sequence encoding cytosine deaminase operatively linked to a promoter, and a pharmaceutically acceptable carrier.

18. (Previously Presented) A pharmaceutical composition according to claim 17, wherein said HSV vector is substantially aneurovirulent.

19. (Canceled)

20. (Currently Amended) [[A]] An anti-tumor pharmaceutical composition according to claim 17, comprising a herpes simplex virus vector comprising a nucleic acid sequence encoding cytosine deaminase operatively linked to a promoter, and a pharmaceutically acceptable carrier wherein the vector comprises a deletion of the $\gamma_134.5$ gene.

21. (Currently Amended) [[A]] An anti-tumor pharmaceutical composition according to claim 17, comprising a herpes simplex virus vector comprising a nucleic acid sequence encoding cytosine deaminase operatively linked to a promoter, and a pharmaceutically acceptable carrier wherein the sequence is inserted within the $\gamma_134.5$ gene deletion.

22. (Previously Presented) A pharmaceutical composition according to claim 17, wherein the expression of the nucleic acid sequence encoding cytosine deaminase results in constitutive production of cytosine deaminase in vivo.

23. (Previously Presented) A pharmaceutical composition according to claim 17, wherein the promoter is a mammalian promoter.

24. (New) A method for treating a subject suffering from cancer, said method comprising the step of: administering to a subject a therapeutically effective amount of a replication competent aneurovirulent herpes simplex virus (HSV) comprising a nucleic acid sequence encoding for an agent selected from the group consisting of granulocyte macrophage

colony stimulating factor, and cytosine deaminase such that an anti-cancer response is induced in the subject.

25. (New) An anti-tumor pharmaceutical composition comprising a replication competent herpes simplex virus (HSV) vector comprising a nucleic acid sequence encoding for a compound selected from the group consisting of GM-CSF and CD operatively linked to a promoter, and a pharmaceutically acceptable carrier.

26. (New) A pharmaceutical composition according to claim 13 wherein said HSV vector has both copies of the $\gamma_134.5$ gene being defective.